Motivating and enabling African Americans to make physician visits is key to reducing race differences in mortality. Race differences in patterns of physician utilization are responsible for more than half of the race disparity in mortality outcomes. Costs of care are associated with poorer survival rates. Higher priced care does not yield better outcomes. Rather, costly care is associated with higher rates of death and is likely an indicator of problem severity.

PHP54

EQUITY OF ACCESS TO HEALTH CARE SERVICES: AN EVIDENCE-BASED STUDY IN TAIWAN

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OBJECTIVES: Based on the empirical data of Taiwan's National Health Insurance (NHI) program, this study intends to analyze the equity of access to health care service for different disease and to test the following hypotheses: a) Equity in health care utilization for minor diseases; b) Equity in health care finance for catastrophe diseases. **METHODS:** Since 1995, a compulsory social health insurance scheme is implemented and has covered about 97% of the total Taiwan population. Using the household registration data (year 2000) from the Ministry of the Interior, the vital registration data (year 2000) from the Department of Health and the insurance claim data (years 1999 and 2000) from the Bureau of NHI, we have analyzed the top utilization rate disease—upper respiratory infection, the top female mortality rate disease-lung cancer and top female neoplasm incidence rate cervix uteri cancer. To test the hypothesis, we classify the distribution of health care resource into 25 areas and analyze financial impact of lung cancer and cervical cancer in last year of life. **RESULTS:** There are 71% beneficiaries who had at least once visited physician for URI, which accounts for 31% of all cases number of outpatients. There are 94% URI utilization rate for the 0–14 year-old beneficiaries. The empirical evidences confirm the first hypothesis. For those women who died of lung cancer and cervical cancer had not showed any health care utilization and expenditure in their last year of life, about 10%, 11% respectively. We had observed significant proportion of these cases either lived in rural areas or under average national income. **CONCLUSION:** The empirical evidences showed there are still financial barrier for catastrophe disease in resource scarce area.

PHP55

ASSOCIATION BETWEEN INCOME AND HEALTH STATUS IN THE ELDERLY CHINESE IN HONG KONG

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OBJECTIVES: Cumulative literature has overwhelmingly suggested that income is positively associated with health. This study aims to identify the domains of health with which income is positively as well as negatively associated, using an elderly sample in a typical transitional economy, Hong Kong. **METHODS:** Stratified disproportional random sampling in 1991–92 assembled a cohort of 2032 elderly subjects who were aged 70 and above. We measured the association between income and different domains of health and resource utilization using bivariate and multivariate regression analyses. **RESULTS:** After adjusting for age, sex, marital and employment status, higher income was associated with better general health ($p = 0.03$), better cognitive function ($p < 0.0001$), lower geriatric depression scale ($p < 0.0001$), better quality of sleep ($p = 0.01$) and fewer visits to general practitioners ($p = 0.01$). Higher income was also associated with higher Body Mass Index ($p = 0.07$), presence of cerebrovascular disease ($p = 0.04$), fractures ($p = 0.03$) and more deficiencies in Activities of Daily Living ($p < 0.01$). **CONCLUSIONS:** Income was positively as well as negatively associated with health in Hong Kong. Other transitional economies in the region may experience the same pattern during rapid economic growth.

PHP56

DIRECT OBSERVATION IN INTENSIVE CARE UNITS: MEDICAL DEVICE-RELATED PROBLEMS ASSOCIATED WITH ALARMS

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OBJECTIVES: To observe the incidence of problems associated with use of medical alarms in intensive care units. **METHODS:** Adverse medical device events (AMDE) and potential patient harm (hazards) associated with alarms in two intensive care units (Shock-Trauma, STICU, and Medical-Surgical, MSICU) within a tertiary referral hospital were observed by a intensive care nurse native to each unit and trained in observational techniques by an anthropologist. The study was conducted during consecutive 6-month periods between October 2001 and September 2002. Five rooms were continuously directly monitored during each of approximately 104 six-hour shifts (4 randomly selected shifts per week). Poisson-method 95% confidence intervals around incidence rates were calculated. **RESULTS:** A total of 81 alarm events were observed in the monitored rooms; 40 were AMDEs and 41 hazards. Forty-five events were related to respiration, oxygenation, or ventilation monitoring, 22 to blood pressure, heart rate, or arrhythmia monitoring, 9 to an infusion pump, and 1 to a feeding pump. Incidence rates per 100 occupied observed bed-days for hazards and AMDE (with 95% confidence intervals) in the STICU were, respectively, 20 (12–31) and 35 (24–49). The corresponding incidence rates for the MSICU were 20